

COMMON QUESTIONS

What is the difference between a rainbow and a steelhead?

Although the final word on this subject has not been written, and there may be some disagreement for years to come, it is now generally believed that the most reliable difference between the two fish lies in their migratory habits. In the rainbow the migratory instinct is little developed; it is a fish which tends to stay at home. The steelhead, on the other hand, is a fish which leaves the stream or river in which it was hatched and migrates to the sea, often in its second year of life. In the sea it feeds voraciously and grows rapidly for one or two years, then returns to the stream or river to spawn. In these respects, it is similar to the salmon, but, unlike the salmon, the steelhead does not always die after its first spawning and may come back one or more times to spawn. There are ordinarily some minor differences in structure and coloration between the rainbow and steelhead and usually one can, with experience, see a difference between them when they are found together in a stream.

What is the difference between a brown trout and a Loch Leven?

As things stand now in California, there are no "Loch Leven" or "German browns"; these names are synonymous with brown trout. The name brown trout or "brownie" is not colorful enough to meet the needs of many anglers and they often prefer to add "German" or to substitute "Loch Leven". No harm is done by using these names, but they are not official in California.

Many years ago, brown trout were imported from Germany and from Loch Leven in Scotland. These two forms differed in coloration and for many years the Department of Fish and Game recognized them as distinct kinds of fish. In time, however, they became mixed, both in the hatcheries and in the wild, and it was impossible to tell which was which. In the 1930's the decision was made to have the official name agree with the official or common name used for these fish in Europe, where they are native.

Why do some trout have a pink meat?

The color of a trout's flesh is due directly to its food. A hatchery rainbow fed on almost any of the common hatchery diets has white flesh. This is because its food lacks the pigmented oil which produces the pink or salmon color. If this hatchery fish is then liberated in a lake which has an abundance of red copepods, scuds or other freshwater crustaceans, its flesh will in time become quite red, providing, of course, that it eats these foods. Some trout prefer surface insects or other types of lake foods which have little or no pigmented oil and these trout remain white-meated, as they were when released from the hatchery. The eggs of pink-meated trout are a deep salmon color in contrast to the more nearly cream-colored eggs from trout with white meat. The flavor of such pink-meated trout is generally considered better than that of the white-meated individuals.

How many hatchery trout survive to be caught by fishermen?

There is no short and simple answer to this question. There have been some plants of fingerling trout which apparently yielded nothing to the angler. At the other extreme, we have made a few plants of catchable-sized rainbows in very heavily fished waters and had 98 percent of them caught within a few days.

Usually fingerling trout planted in a lake will yield 5 to 20 percent to the angler during the years following their liberation. These are fish much too small to be caught in the year they are planted and it may be several years before they are caught. During this time a great many things can happen to them. Most of those which are lost are victims of larger cannibalistic trout. The mortality is very heavy while the trout are still in the fingerling stage and gradually becomes less and less as they grow larger. Thus, when a trout of catchable size (7½ inches long or larger) is planted, the loss is relatively low. The Department expects, at the very least, a return to the angler of 50 percent of these fish and it is usually higher. In smaller streams and in lakes from which the planted catchables cannot easily escape, anglers catch about 85 percent.

Why are fingerlings planted in some waters whereas "catchable" trout are planted in others?

Tests have been conducted in many lakes and streams in California and elsewhere and it has been found that fingerling trout planted in streams and rivers suffer such a very heavy loss that it is uneconomical to maintain good fishing by the use of these small trout. Few of these reach catchable size in one year. Ordinarily, it takes at least two years for such fish to become large enough to catch. The natural mortality is so great that often 98 percent of the hatchery trout released in streams as fingerlings never reach the angler's creel. In contrast to this, a relatively high percentage of the 7½-inch trout are caught. Therefore, even though the cost of raising a catchable-sized fish is many times that of a fingerling, it is necessary to use the large fish when stocking heavily fished streams to assure angler success.

The same is not true of most lakes and reservoirs. If there are not many cannibal trout in such waters, the survival to the creel is high enough to make fingerling stocking economically sound. In most lakes and reservoirs the growth rate of trout is considerably faster than in streams. Fish commonly attain catchable size in one year. Predators are less abundant in lakes and in addition losses due to winter conditions are not as great as in streams. For all these reasons, it is possible to plant fingerlings in lakes and reservoirs and provide good trout fishing for considerably less money than would be the case if catchables had to be used.